

PIA-3312

- **BIOS:** Flash X-BIOS
- **Autoboot :** Built-in X-DOS
- **System Memory:** 512 KB DRAM (1 MB optional)
- **Built-in Flash/ROM Disk** (512 KB / 1 MB) Emulates one Floppy drive
- **Serial Ports:** COM1 (RS-232) and COM2 RS-232/485 (selectable)
- **Free IRQ's:** 5, 6, 7, 9, 14 (No DMA)
- **Connectors :** External speaker, system reset, external keyboard, COM1 and COM2, external power
- AMD708 precision power monitoring at +4.65 V_{DC}

ENVIRONMENTAL AND POWER

- **Power Requirements :** Single 5V @ 350 mA with 1 MB DRAM and 512 KB Flash
- **Dimensions :** 95 x 90 mm
- **Weight :** 100 grams
- **Operating Temperature:** 0 ~ +55°C
- **Storage Temperature :** -25 ~ +80°C
- **Relative Humidity:** 0 ~ 90% non-condensing

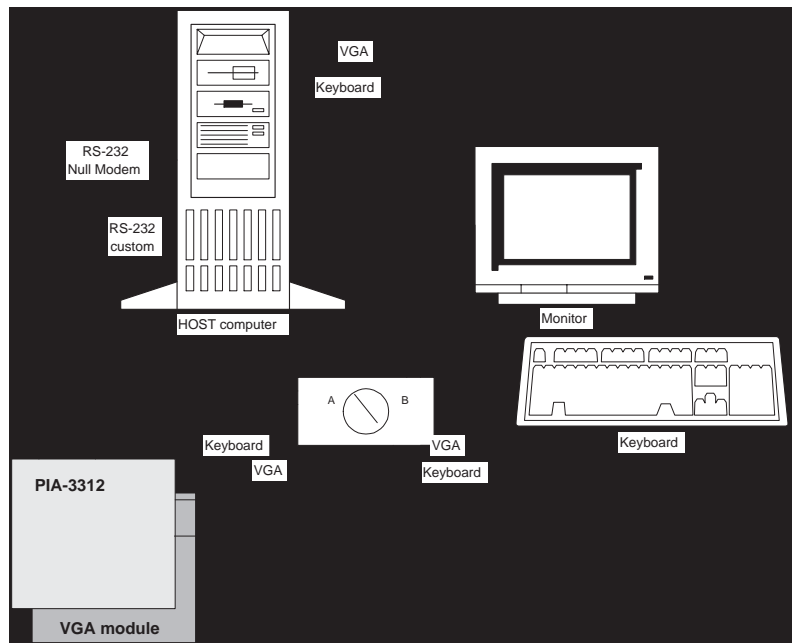
386EX-25 CPU Module

The PIA-3312 forms the durable, performance core for embedded control applications. The module is highly integrated due to the INTEL 386EX system that combines chipset and CPU. This combination results in better performance, a longer life and less power consumption. The module supports the DOS operating system

With the integration of chipset and CPU, space is left for an onboard Flash/ROM disk and two COM ports that support either RS-232 or RS-485.

Specifications

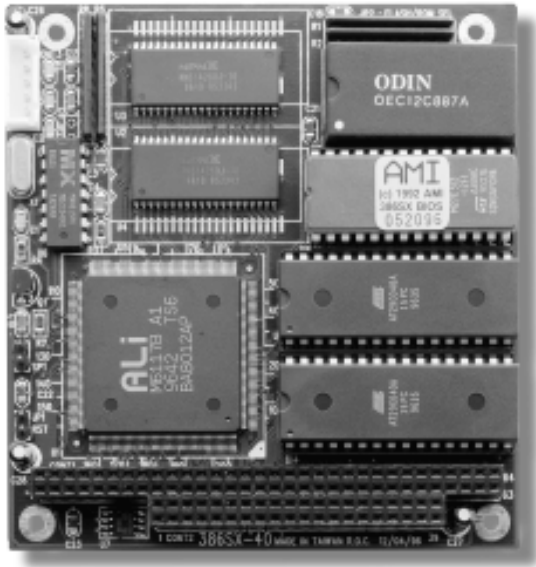
- **Integrated INTEL 386EX-25** combines chipset and CPU, includes :
 - Clock and Power Management Unit
 - Chip-select Unit
 - Interrupt Control Unit
 - Timer Control Unit
 - Watchdog Timer Unit
 - Asynchronous Serial I/O Unit
 - Synchronous Serial I/O Unit
 - Parallel I/O Unit
 - DMA and Bus Arbiter Unit
 - Refresh Control Unit



SETUP AND PROGRAMMING

Ordering

- **PIA-3312 :** PC/104 386EX-25 CPU Module with 512 KB system memory installed



PIA-3310

386SX-40 CPU Module

The PIA-3310 is a core module for high performance control applications in hostile embedded applications. The module implements all key functions of a full PC/AT compatible system. This enables use of standard PC architecture in applications that before were only suitable for microcontrollers.

The module supports all the popular operating systems including Windows 3.1, Windows 95, OS/2 and Unix. Any standard PC compiler or debugger can be used, resulting in a significantly reduced software development cycle.

Specifications

- **Integrated ALI M6117 Single Chip** is an implementation of an INTEL compatible 386SX CPU and ALI's M1217B chipset :
 - 386SX-40 core
 - Built-in RTC & Keyboard controller
 - DRAM Controller
 - ISA interface
 - 2 cascaded 8237 DMA controllers
 - 74612 memory mapper
 - 2 cascaded 8259 interrupt controllers
 - 8254 programmer counter

- **Software Compatibility :**
MS-DOS, MS Windows 3.1, Windows 95, OS/2, 286/386 Unix compatible
- **AMI Bios:** 512KB
- **System Memory:** 1 MB (4 MB factory level option)
- ADM708 precision power monitoring at +4.65 V_{DC}
- **PCB :** 4-layer, high frequency
- **Connectors for :**
External speaker, system reset, external keyboard

ENVIRONMENTAL AND POWER

- **Power Requirements :** Single 5V @ 350 mA with 1 MB DRAM and 512 KB Flash
- **Dimensions :** 95 x 90 mm
- **Weight :** 100 gram
- **Operating temperature:** 0 ~ +55°C
- **Storage Temperature :** -25 ~ +80°C
- **Relative Humidity:** 0 ~ 90% non-condensing

Ordering

- PIA-3310-1 :** PC/104 386SX-40 CPU Module with 1 MB DRAM factory installed
- PIA-3310-4 :** PC/104 386SX-40 CPU Module with 4 MB DRAM factory installed